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EXAMINER

LANIER, BENJAMIN E

ART UNIT

PAPER NUMBER

2132

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/486,940	WU ET AL.	
	Examiner	Art Unit	
	Benjamin E Lanier	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 14 July 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-95 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-3,5-14,16-25,27-36,38-47,49-58 and 60-95 is/are rejected.

7) Claim(s) 4,15,26,37,48 and 59 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 03 March 2000 is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 14 July 2004 have been fully considered but they are not persuasive. Applicant's argument that the Rhoads reference does not relate to document authentication, where the originality of the document is important is not persuasive because Rhoads deals specifically with the authentication of a suspect image as a copy of an original image (Col. 11, line 1 – Col. 12, line 16).
2. Applicant's argument that the Rhoads reference does not disclose that changing any part of the content is not allowed or should be discernable is not persuasive because this is not a claimed limitation.
3. Applicant's argument that the identification word of Rhoads does not equate to the content digest of the present invention is not persuasive because contrary to Applicant's assertion that the identification word is just a name or ID the identification word contains various calibration bits (Col. 12, lines 1-16) that identify contents of the image (Col. 8, lines 10-33).
4. Applicant's argument that the Rhoads reference does not disclose an electronic seal or logos is not persuasive because Rhoads discloses the use of logos (visible seals) for embedding identification information into an image (Col. 3, lines 47-49).
5. Applicant's argument that the Rhoads reference does not disclose authenticating said original document in original form is not persuasive because claims 1, 12, 23, 34, 45, 56, 69, 75, 81 do not include the limitation "authenticating said original document in original form". What the claims do include is the limitation of "authenticating said original document in **electronic** form".

6. Applicant's argument that the Rhoads reference does not disclose the optically sensitive or sensible component is not persuasive because Rhoads discloses normalizing the pixel values to a certain level, thereby upon inspection of a suspected copy, the pixel levels have to be re-normalized to the original images' levels so that a comparison can be made (Col. 10, line 16 – Col. 11, line 42). After subsequent processing the previously embedded identification word can be extracted and compared with the original to indicate copying. If this comparison concludes that the identification words are the same, then it can be concluded that the images are the same and identification word is usable to identify the rightful owner (Col. 11, line 46 – Col. 12, line 9), which would meet the limitation of verifying the legitimacy of an authenticated document.

7. Applicant's argument that the Rhoads reference does not disclose adding the optically sensitive or sensible component to the authenticated document is not persuasive because the same normalizing is done with the original image before the embedding process, therefore the image would be inherently authenticated because it would be the owners' own image that they are normalizing.

8. Applicant's argument that the Rhoads reference does not disclose a watermark in the e-seal is not persuasive because Rhoads discloses the use of logos (visible seals, e-seal) for embedding identification information into an image (Col. 3, lines 47-49) and this logo is a watermark. Applicant's claims do not narrow the e-seal to contain anything other than a watermark.

9. Applicant's argument with respect to the teaching of using fingerprints and magnetic strips in Rhoads is not persuasive because MPEP 2123 states:

PATENTS ARE RELEVANT AS PRIOR ART FOR ALL THEY CONTAIN

“The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain.” *In re Heck*, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting *In re Lemelson*, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). See also *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998) (The court held that the prior art anticipated the claims even though it taught away from the claimed invention. “The fact that a modem with a single carrier data signal is shown to be less than optimal does not vitiate the fact that it is disclosed.”).

NONPREFERRED EMBODIMENTS CONSTITUTE PRIOR ART

Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). “A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use.” *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) (The invention was directed to an epoxy impregnated fiber-reinforced printed circuit material. The applied prior art reference taught a printed circuit material similar to that of the claims but impregnated with polyester-imide resin instead of epoxy. The reference, however, disclosed that epoxy was known for this use, but that epoxy impregnated circuit boards have “relatively acceptable dimensional stability” and “some degree of flexibility,” but are inferior to circuit boards impregnated with polyester-imide resins. The court upheld the rejection concluding that applicant’s argument that the reference teaches away from using epoxy was insufficient to overcome the rejection since “Gurley asserted no discovery beyond what was known in the art.” 27 F.3d at 554, 31 USPQ2d at 1132.).

10. Applicant’s argument that the Rhoads reference does not disclose the block-wise derivation is not persuasive because as previously mentioned Rhoads discloses the use of fingerprinting (Col. 2, lines 54-57) and discloses that the scanning of the image is done on a pixel by pixel basis (Col. 8, line 54 – Col. 9, line 9).
11. In response to applicant’s argument that the examiner’s conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on

obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

12. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, It would have been obvious to one of ordinary skill in the art at the time the invention was made to distribute the files of Rhoads in the manner disclosed in Dziewit in order to provide a reliable method of document distribution without the use of paper as disclosed in Dziewit (Col. 1, line 65 – Col. 2, line 56). Dziewit does not disclose a receipt from a receiving party to a sending party. Mollier teaches it will always be possible to issue to the sender a receipt (Col. 9, lines 61-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to send receipts in the delivery system of Dziewit in order to confirm communications as taught in Mollier.

13. Applicant's argument that the stored dual copy protection scheme is not analogous to an electronic safe deposit box is not persuasive because storage disks or memory that provides dual copy protection scheme provide restrictive access by definition. It would have been obvious to

one of ordinary skill in the art at the time the invention was made to provide secure storage of the authorizing information in order to restrict access to the concerned parties as taught in Dziewit (Col. 12, line 54 – Col. 13, line 5).

14. In response to applicant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

15. Applicant's arguments filed 14 July 2004, with respect to 4, 15, 26, 37, 48, and 59 have been fully considered and are persuasive. The rejections of claims 4, 15, 26, 37, 48, and 59 have been withdrawn.

16. Applicant's arguments filed 14 July 2004, with respect to 10, 21, 32, 43, 54, 65 have been fully considered and are persuasive. The rejections under 35 U.S.C. 112 of claims 10, 21, 32, 43, 54, 65 have been withdrawn.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 1-3, 5-9, 11-14, 16-20, 22-25, 27-31, 33-36, 38-42, 44-47, 49-53, 55-58, 60-64, 66-86 are rejected under 35 U.S.C. 102(b) as being anticipated by Rhoads, U.S. Patent No. 5,768,426. Referring to claims 1, 2, 6, 7, 9, 12, 13, 17, 18, 20, 23, 24, 28, 29, 31, 34, 35, 39, 40, 42, 45, 46, 50, 51, 53, 56, 57, 61, 62, 64, 66-86, Rhoads discloses an image watermarking system

wherein an identification word (content digest) and an embedded code are embedded into a digital image (Col. 9, lines 17-54 & Col. 10, lines 11-30), which meets the limitation of an electronic document including content of an original document in electronic form, a content digest for said content said original document in electronic form, and an electronic seal or e-seal for authenticating said original document in electronic form, said e-seal including a visible seal of an authority and said content digest embedded in said visible seal. Rhoads discloses the use of logos (visible seals) for embedding identification information into an image (Col. 3, lines 47-49). Rhoads discloses normalizing the pixel values to a certain level, thereby upon inspection of a suspected copy, the pixel levels have to be re-normalized to the original images' levels so that a comparison can be made (Col. 10, line 16 – Col. 11, line 42), which meets the limitation of an optically sensitive or sensible component added to said authenticated document for printing using a trusted printing process, said optically sensitive or sensible component containing information for indicating copying or modification of said printed document in a copy or modified version of said printed document. Once normalized you subtract the original image from the newly normalized suspect image within a standard mask region. With this difference image you step through the embedded image codes that were generated earlier. If the suspect image is in fact a copy of the original the identification information should appear when the correct embedded image code is applied to the difference image (Col. 11, line 34 – Col. 12, line 16), which meets the limitation of verifying a watermarked digest of content against a corresponding one of one or more e-seals included in said authenticated electronic document, visually inspecting said visual seal of each of said one or more e-seals, verifying said optically sensitive component of said authenticated printed document, scanning said authenticated printed

document and extracting a watermark from each of said one or more e-seals, and extracting a content digest from each of said watermarks and verifying said extracted content digest.

Referring to claims 3, 14, 25, 36, 47, 58, Rhoads discloses that the identification information can be encrypted (Col. 27, lines 13-17).

Referring to claims 5, 16, 27, 38, 49, 60, Rhoads discloses that the identification information could be a fingerprint (Col. 2, lines 54-57), which meets the limitation of the content digest is a condensed representation of said original document generated by selecting key items of said content.

Referring to claims 8, 19, 30, 41, 52, 63, Rhoads discloses that the optically sensitive information could be the magnetic strip on a credit card (Col. 2, lines 56-59), which meets the limitation of an optically sensitive component that includes a serial number.

Referring to claims 11, 22, 33, 44, 55, Rhoads discloses that the embedded information is acceptably close to the original in an aesthetic sense (Col. 10, lines 35-36), which meets the limitation of the embedded watermark being imperceptible.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

21. Claims 87-90, 92-95 rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads

U.S. Patent No. 5,768,426, in view of Dziewit U.S. Patent No. 4,981,370, further in view of Mollier U.S. Patent No. 4,467,139. Referring to claims 87-89, 92-95, Rhoads discloses an image watermarking system wherein an identification word (content digest) and an embedded code are embedded into a digital image (Col. 9, lines 17-54 & Col. 10, lines 11-30), which meets the limitation of electronic document including content of an original document in electronic form, a content digest for said content said original document in electronic form, and an electronic seal or e-seal for authenticating said original document in electronic form, said e-seal including a visible seal of an authority and said content digest embedded in said visible seal. Rhoads discloses the use of logos (visible seals) for embedding identification information into an image (Col. 3, lines 47-49). Rhoads discloses normalizing the pixel values to a certain level, thereby upon inspection of a suspected copy, the pixel levels have to be re-normalized to the original images' levels so that a comparison can be made (Col. 10, line 16 – Col. 11, line 42), which meets the limitation of an optically sensitive or sensible component added to said authenticated document for printing using a trusted printing process, said optically sensitive or sensible component containing information for indicating copying or modification of said printed document in a copy or modified version of said printed document. Once normalized you subtract the original image from the newly normalized suspect image within a standard mask region. With this difference image you step through the embedded image codes that were generated earlier. If the suspect image is in fact a copy of the original the identification information should

appear when the correct embedded image code is applied to the difference image (Col. 11, line 34 – Col. 12, line 16), which meets the limitation of verifying a watermarked digest of content against a corresponding one of one or more e-seals included in said authenticated electronic document, visually inspecting said visual seal of each of said one or more e-seals, verifying said optically sensitive component of said authenticated printed document, scanning said authenticated printed document and extracting a watermark from each of said one or more e-seals, and extracting a content digest from each of said watermarks and verifying said extracted content digest. Rhoads does not disclose distribution of the embedded files over a network. Dziewit discloses establishing a secure communication link between parties at one or more locations (Col. 6, line 31), verifying the identity of each party (Col. 2, lines 24-25), protecting the legitimacy of a signed document in electronic form (Col. 2, line 25-27 & Col. 2, lines 39-41), sending a protected, signed electronic document to a receiving party (Col. 11, lines 18-21, and receiving protected electronic document at receiving location (Col. 11, line 22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to distribute the files of Rhoads in the manner disclosed in Dziewit in order to provide a reliable method of document distribution without the use of paper as disclosed in Dziewit (Col. 1, line 65 – Col. 2, line 56). Dziewit does not disclose a receipt from a receiving party to a sending party. Mollier teaches it will always be possible to issue to the sender a receipt (Col. 9, lines 61-63). It would have been obvious to one or ordinary skill in the art at the time the invention was made to send receipts in the delivery system of Dziewit in order to confirm communications as taught in Mollier.

Referring to claim 90, Dziewit discloses the electronic data can be stored on multiple disks or on a memory that provides a dual copy protection scheme (Col. 13, lines 1-3).

22. Claim 91 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads U.S. Patent No. 5,768,426, in view of Dziewit U.S. Patent No. 4,981,370, further in view of Mollier U.S. Patent No. 4,467,139 as applied to claim 87 above, and further in view of Doggett, U.S. Patent No. 5,677,955. Referring to claim 91, Rhoads discloses an image watermarking system wherein an identification word (content digest) and an embedded code are embedded into a digital image (Col. 9, lines 17-54 & Col. 10, lines 11-30), which meets the limitation of electronic document including content of an original document in electronic form, a content digest for said content said original document in electronic form, and an electronic seal or e-seal for authenticating said original document in electronic form, said e-seal including a visible seal of an authority and said content digest embedded in said visible seal. Rhoads discloses the use of logos (visible seals) for embedding identification information into an image (Col. 3, lines 47-49). Rhoads discloses normalizing the pixel values to a certain level, thereby upon inspection of a suspected copy, the pixel levels have to be re-normalized to the original images' levels so that a comparison can be made (Col. 10, line 16 – Col. 11, line 42), which meets the limitation of an optically sensitive or sensible component added to said authenticated document for printing using a trusted printing process, said optically sensitive or sensible component containing information for indicating copying or modification of said printed document in a copy or modified version of said printed document. Once normalized you subtract the original image from the newly normalized suspect image within a standard mask region. With this difference image you step through the embedded image codes that were generated earlier. If the suspect

image is in fact a copy of the original the identification information should appear when the correct embedded image code is applied to the difference image (Col. 11, line 34 – Col. 12, line 16), which meets the limitation of verifying a watermarked digest of content against a corresponding one of one or more e-seals included in said authenticated electronic document, visually inspecting said visual seal of each of said one or more e-seals, verifying said optically sensitive component of said authenticated printed document, scanning said authenticated printed document and extracting a watermark from each of said one or more e-seals, and extracting a content digest from each of said watermarks and verifying said extracted content digest. Dziewit discloses establishing a secure communication link between parties at one or more locations (Col. 6, line 31), verifying the identity of each party (Col. 2, lines 24-25), protecting the legitimacy of a signed document in electronic form (Col. 2, line 25-27 & Col. 2, lines 39-41), sending a protected, signed electronic document to a receiving party (Col. 11, lines 18-21, and receiving protected electronic document at receiving location (Col. 11, line 22). Mollier teaches it will always be possible to issue to the sender a receipt (Col. 9, lines 61-63). Dziewit does not disclose a method of electronic check transaction. Doggett discloses establishing a secure network link from a service center to a payee, a payer, and one or more respective banks (Col. 5, lines 52-54), signing an electronic check (Col. 7, lines 50-53) and sending said check to the payee (Col. 7, lines 62-64), claiming said check for the payee (Col. 8, lines 19-25), clearing the transactions (Col. 8, line 34), and refusing the payment if the check is not legitimate (Col. 8, lines 37-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the method of electronic check payment of Doggett in Dziewit for the purpose of effecting transfer of fund between payer and payee.

Allowable Subject Matter

Claims 4, 15, 26, 37, 48, 59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not disclose encrypting a digest of the document with a created from one of a watermark boundary, shape, or embedding address.

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin E Lanier whose telephone number is 703-305-7684. The examiner can normally be reached on M-Th 7:30am-5:00pm, F 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703)305-1830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Benjamin E. Lanier


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